

AUG 29 2003

K032579

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**Special 510(k) Summary: Line Extension to the S2 Tibial Nail System****Submission Information**

Name and Address of the Sponsor of the 510(k) Submission: Howmedica Osteonics Corp  
59 Route 17  
Allendale, NJ 07401-1677

Contact Person: Vivian Kelly  
Regulatory Affairs Consultant

Date of Summary Preparation: August 20, 2003

**Device Identification**

Proprietary Name: S2 Nail System  
Common Name: Intramedullary Nail,  
Classification Name and Reference: Intramedullary Fixation Rod  
21 CFR §888.3020

This Special 510(k) submission is intended to address a line extension to the predicate S2 Nail System. The line extension involves design modifications to the femoral and tibial nails with additional diameters plus additional accessories. There is no change in intended use for the modified device when compared to the previously cleared device.

**Intended Use**

The subject S2 Nail System is a fracture fixation device comprised of femoral and tibial nails and the related accessories such as washers, locking screws, compression screws, end caps, condyle screws and a condyle screw nut. The subject and predicate devices are intended to provide strong and stable internal fracture fixation with minimal soft tissue irritation of the tibia and femur. This device is utilized as an aid to healing, not as a substitute for normal intact bone and tissue.

**Statement of Technological Comparison:**

The material used to manufacture the line extension to the S2 Nail System is identical to that of the predicate. FEA analysis and mechanical testing demonstrates the comparable mechanical properties of the subject S2 Nail System to the predicate devices.



Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

AUG 29 2003

Ms. Vivian Kelly  
Regulatory Affairs Consultant  
Howmedica Osteonics Corporation  
59 Route 17  
Allendale, NJ 07401-1677

Re: K032579  
Trade/Device Name: S2 Nail System  
Regulation Number: 21 CFR 888.3020  
Regulation Name: Intramedullary fixation rod  
Regulatory Class: II  
Product Codes: HSB  
Dated: August 20, 2003  
Received: August 21, 2003

Dear Ms Kelly:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

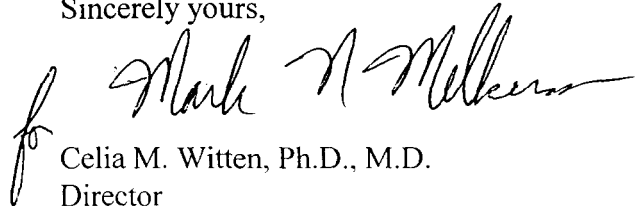
Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

Page 2 – Ms. Vivian Kelly

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (301) 594-4659. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,

A handwritten signature in black ink, appearing to read "Celia M. Witten", is written over a horizontal line.

Celia M. Witten, Ph.D., M.D.

Director

Division of General, Restorative  
and Neurological Devices

Office of Device Evaluation

Center for Devices and  
Radiological Health

Enclosure

510(k) Number (if known):

K032579

Device Name: S2 Nail SystemS2 Tibial Nail

The S2 Tibial Nail is intended to provide temporary stabilization of various types of fractures, malunion and nonunion of the tibia. The nails are inserted using an opened or closed technique and can be statically, dynamically and compression locked. The S2 Tibial Nail System is indicated for long bone fracture fixation, specifically tibial fracture fixation, which may include the following:

- Open and closed tibial fractures
- Pseudoarthrosis and correction osteotomy
- Pathologic fractures, impending pathologic fractures, and tumor resections
- Nonunion and malunion

S2 Femoral Nail

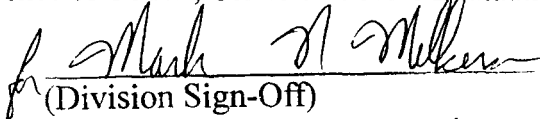
The S2 Femoral Nail is indicated for long bone fracture fixation, specifically femoral fracture fixation, which may include the following:

- Open and closed femoral fractures
- Pseudoarthrosis and correction osteotomy
- Pathologic fractures, impending pathologic fractures, and tumor resections
- Supracondylar fractures, including those with intra-articular extension
- Ipsilateral femur fractures
- Fractures proximal to a total knee arthroplasty
- Fractures distal to a hip joint
- Nonunions and malunions

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

  
(Division Sign-Off)

Division of General, Restorative  
and Neurological Devices

Prescription Use \_\_\_\_\_

510(k) Number

K032579

~~Over-The-Counter Use~~ \_\_\_\_\_

(Per 21 CFR 801.109)

(Optional Format 1-2-96)